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PRESENCE/ABSENCE SURVEYS FOR SOUTHWESTERN WILLOW FLYCATCHER ON SOUTHERN UTE INDIAN TRIBAL LANDS IN THE SAN JUAN RECOVERY UNIT, COLORADO



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INTRODUCTION

The Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is a neotropical migratory bird currently listed as endangered under the Federal Endangered Species Act (U.S. Fish and Wildlife Service [USFWS] 1995). The Southwestern subspecies breeds in dense, shrubby habitat, usually in close proximity to water or saturated soil (Sogge et al. 1997, Sedgwick 2000), and is considered a riparian obligate in the southwestern US (Bureau of Land Management [BLM] 1998). Human disturbances to natural waterways, including damming, channelization, and dredging, have impacted flycatcher habitat, resulting in some of this species' recent decline (Sedgwick 2000). Currently, the known breeding population of the Southwestern Willow Flycatcher is estimated at 300-500 pairs (Sogge et al. 1997).

The current breeding distribution of the Southwestern Willow Flycatcher includes southern California east to Arizona, New Mexico, southern Nevada and Utah, and southwestern Colorado (Figure 1). The San Juan Recovery Unit in Southwestern Colorado, however, falls within the current boundary of the ranges of two Willow Flycatcher subspecies, the Southwestern (E. t. extimus) and the Great Basin/Rocky Mountain subspecies (E. t. adastus) (USFWS 2002). Recent research in the San Luis Valley (south-central Colorado) has identified individuals with E. t. extimus genes (Owen and Sogge 1997); however, other individuals have been identified as E. t. adastus (Paxton 2000 in USFWS 2002). Prior to 2003, there has not been a comprehensive USFWS protocol survey effort for Southwestern Willow Flycatcher in the San Juan Recovery Unit in southwestern Colorado (USFWS 2002).

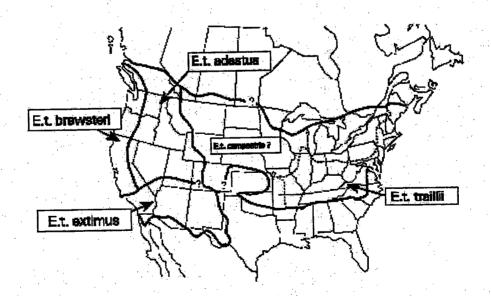


Figure 1. Distribution of Willow Flycatcher sub-species. From Sogge et al. (1997), adapted from Unit (1987) and Browning (1993).

The U.S. Fish and Wildlife Service have identified four general breeding habitat types for the Southwestern Willow Flycatcher: monotypic high-elevation willow (Salix sp.); monotypic exotic (e.g. saltcedar [Tamarix sp.] and Russian olive [Elaeagnus angustifolia]); native broadleaf (e.g., willow, cottonwood [Populus sp.], and ash [Fraxinus sp.]); and mixed native/exotic (Sogge et al. 1997). The Southern Ute Indian Tribe (SUIT) lies within the San Juan Recovery Unit, and includes several river drainages that contain potential habitat for Southwestern Willow Flycatchers. In 2003, Ecosphere Environmental Services (Ecosphere) and SUIT biologists cooperatively surveyed for Southwestern Willow Flycatcher within suitable habitat on tribal lands.

STUDY AREA

Southwestern Willow Flycatcher surveys were conducted in riparian habitat on SUIT lands along the Piedra and Pine Rivers (Figure 2). We surveyed one relatively long stretch of the Piedra River, and six shorter sections along the Pine River.

Piedra River Survey Areas

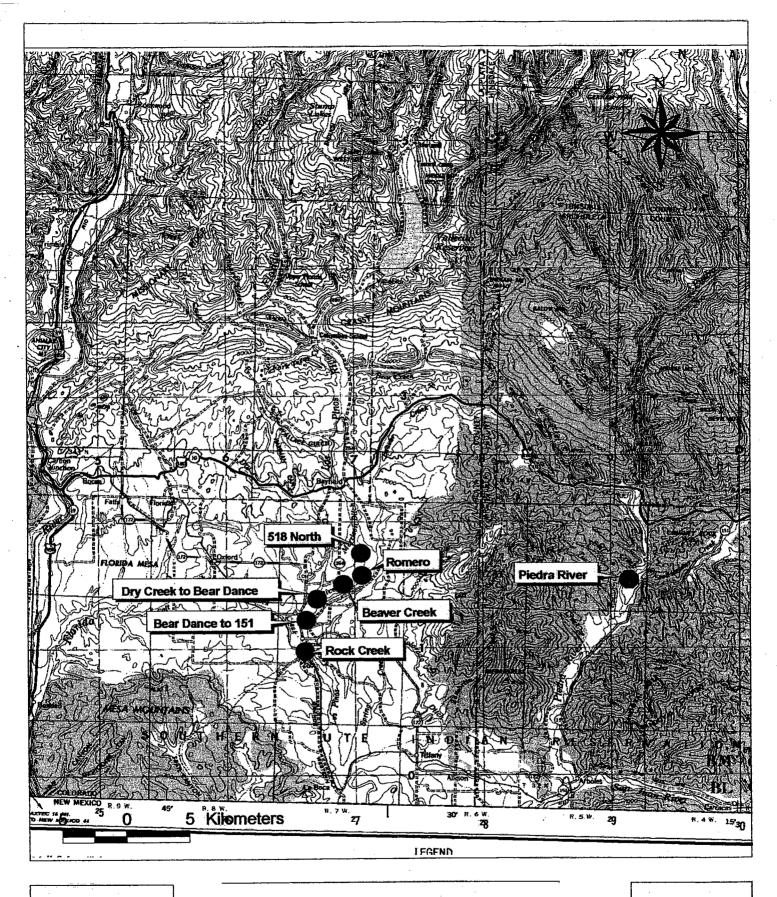
Piedra River, Southern Ute Indian Reservation.—This survey area encompasses approximately 5.0 km along the Piedra River, adjacent to Fosset Gulch Road, approximately 12 km north of Arboles (Appendices A and B). Here, there are 13 potentially suitable habitat patches along both the east and west side of the Piedra, although the habitat is not continuous throughout the entire length of the survey area. Elevation at the site is approximately 1950 m (6400 ft). Habitat along the river is dominated by coyote willow (Salix exigua), narrowleaf cottonwood (Populus angustifolia), and rose sp. (Rosa sp.), with vegetation height ranging between approximately 2 and 5 m.

Pine River Survey Areas

518 North.—This survey site includes approximately 0.7 km of habitat along the Pine River, adjacent to County Road 518 and approximately 6.1 km south of Bayfield (Appendices A and B). Riparian vegetation at this site is dominated by coyote willow and narrowleaf cottonwood, with canopy height ranging from 2-5 m. Elevation at this survey area is approximately 2040 m (6700 ft).

Romero.—The Romero property includes approximately 1.0 km of habitat along the Pine River, approximately 7.0 km north of Ignacio (Appendices A and B). This site is dominated by coyote willow and narrowleaf cottonwood, with heights ranging from 2-7 m. The majority of the potential flycatcher habitat occurs on the west side of the river; however, there are a few patches of habitat east of the river. The southern end of the survey area includes some marsh habitat, and several beaver ponds. Elevation is approximately 2010 m (6600 ft).

Beaver Creek --- The Beaver Creek survey area includes approximately 0.7 km of potential Southwestern Willow Flycatcher habitat along the Pine River, adjacent to County Road



COLORADO

FIGURE 2 SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREAS ON SUIT LANDS IN THE SAN JUAN RECOVERY UNIT

Prepared By: Ecosphere Environmental Services 521 and approximately 4.7 km north of Ignacio (Appendices A and B). Elevation is approximately 2010 m (6600 ft). Beaver Creek is characterized by cottonwood gallery forest and scattered patches of dense vegetation, dominated by coyote willow and narrowleaf cottonwood. Most of the habitat suitable for Southwestern Willow Flycatchers occurs on the east side of the river; however, there are also scattered patches of potential flycatcher west of the river. Vegetation in the survey area ranged from 2-6 m in height.

Dry Creek to Bear Dance.—This survey area begins just north of the confluence of Dry Creek and the Pine River, and extends south to Bear Dance Road in Ignacio (Appendices A and B). Total length of this stretch of river is approximately 1.9 km, although habitat is not continuous throughout the entire area. Most of the habitat suitable for Southwestern Willow Flycatchers occurs on the west side of the Pine River, although a few habitat patches are present east of the river. Dominant vegetation includes coyote willow, narrowleaf cottonwood, and box elder (Acer negundo), with a mean height of approximately 5-7 m. Elevation is approximately 1980 m (6500 ft).

Bear Dance to 151.—This survey area includes approximately 1.6 km of habitat along the Pine River, between Bear Dance Road and Highway 151 in Ignacio (Appendices A and B). Elevation is approximately 1980 km (6500 ft). Potential flycatcher habitat occurs in scattered patches along both the east and west sides of the Pine; however, the habitat is not continuous along this entire stretch of river. Dominant vegetation includes coyote willow and narrowleaf cottonwood, with a large cattail marsh occurring at the southern end of the survey area on the east side of the river. Mean height of the riparian vegetation at this site is about 5 m.

Rock Creek.—Rock Creek is the southernmost survey area on SUIT land along the Pine River. The survey area begins at the Ignacio Water Treatment Plant adjacent to Rock Creek, and extend south to the confluence of Rock Creek and the Pine River (Appendices A and B). Elevation is approximately 1950 m (6400 ft). Potential habitat for Southwestern Willow Flycatchers occurs along both sides of Rock Creek, with the majority of suitable habitat on the eastern side. Vegetation is dominated by coyote willow, narrowleaf cottonwood, and rose, with a mean height of 8-10 m.

METHODS

In 2003, Ecosphere and SUIT biologists performed Southwestern Willow Flycatcher surveys on tribal lands. We conducted surveys following the protocol developed by Sogge et al. (1997), in accordance with the Federal Endangered Species Act. The protocol involves surveying for flycatchers using the tape playback method. The presence of Willow Flycatchers was confirmed only if a bird responded to the tape by singing the distinctive song, "fitz-bew". One survey was conducted at each of the survey areas during each of the following three periods, 15-31 May, 1-21 June, and 22 June-10 July. Consecutive flycatcher surveys at each site were conducted at least five days apart from each other, and were completed between approximately 5:45 a.m. and 10:00 a.m. When Willow Flycatchers were detected, we recorded their locations in UTMs, using a Garmin

Global Positioning System (GPS), and mapped these locations on USGS 7.5" quadrangle maps. Flycatchers were only considered resident potential breeders if detected during the third survey period (Sogge et al. 1997). All flycatchers detected during periods 1 and 2 were considered migrants unless they were also observed during the third period (Sogge et al. 1997). In addition to recording the presence/absence of Southwestern Willow Flycatchers, observers also recorded other bird species seen or heard while conducting the surveys.

RESULTS

Piedra River Survey Areas

Piedra River, Southern Ute Indian Reservation.—We did not detect any Southwestern Willow Flycatchers within the Piedra River survey area in 2003 (Appendix C). Appendix E lists all avian species observed along the Piedra while conducting surveys in 2003.

Pine River Survey Areas

In 2003, we detected Willow Flycatchers at four of the six survey sites along the Pine River: Romero, Dry Creek to Bear Dance, Bear Dance to 151, and Rock Creek (Table 1, Appendices C and D). No flycatchers were detected at the 518 North or Beaver Creek survey areas (Appendix C). A list of all avian species detected at the Pine River survey sites is listed in Appendix E.

Romero.—One breeding pair of Willow Flycatchers was detected at Romero during the 2003 breeding season (Table 1, Appendices C and D). We first detected a singing male at this site during the second survey period. This bird was observed singing in a cottonwood tree adjacent to a patch of dense, coyote willow. During our third period survey, we detected a singing male in the same general area, as well as another flycatcher exhibiting the "whit" call. We assumed these birds were a breeding pair because they were seen in close proximity to one another without aggressive interactions. One of the birds was seen emerging from the willows with a fecal sac in its bill. We approached the area and found the nest, which contained one Willow Flycatcher chick and one Brown-headed Cowbird (Molothrus ater) chick. The flycatcher chick was fully feathered and was sitting on the rim of the nest. We estimated that this chick would fledge within one day of the discovery of the nest. We estimated that this chick would fledge within one day of the discovery of the nest. The cowbird chick was sitting inside the nest, its body still covered with down and pin feathers emerging from their shafts. We estimated that the cowbird would require more than one additional day to develop prior to fledging. Biologists from the SUIT monitored this nest, and confirmed that the flycatcher chick fledged from the nest.

In addition to the discovery of this nest, SUIT biologists also located two additional Willow Flycatcher nests at the Romero site, while conducting non-protocol follow-up surveys. The first nest was discovered in mid-July and contained three eggs. Based on the breeding biology of Willow Flycatchers, we speculated that an additional female initiated this nest, rather than the previously observed female at Romero. SUIT biologists observed

a female flycatcher tending to this new nest in mid-July; however, it was subsequently depredated. In late July, egg-laying was initiated at another nearby nest. We speculated that this was an additional nesting attempt by the second female at the Romero site. Three young Willow Flycatchers successfully fledged from this nest in mid-August. A list of all avian species detected at Romero is provided in Appendix E.

Table 1. UTM coordinates for Willow Flycatchers detected during protocol surveys on the Pine River, 2003.

Location	Surv	vey period 1	Sur	vey period 2	Survey period 3		
	Bird	UTM	Bird	UTM	Bird	UTM	
Romero			1	4115879 N 0270411 E	1	4115966 N 0270456 E	
	4		* *		2	4115959 N 0270424 E	
Dry Creek to Bear Dance	1 .	4112686 N 0266565 E	1	4112686 N 0266565 E	1	4112686 N 0266565 E	
	2	4113562 N 0267282 E	2	4113552 N 0267089 E			
Bear Dance to 151	· · · · · · · · · · · · · · · · · · ·	A Annual Control	1	4111225 N 0266287 E			
Rock Creek	1	4109531 N 0266350 E					
	2	4109470 N 0266441 E					
	3	4109476 N 0266507 E					
	4	4109756 N 0266520 E					

Dry Creek to Bear Dance.—In 2003, we detected two Willow Flycatchers each during the first and second survey periods, and one flycatcher during the third survey period at the Dry Creek to Bear Dance survey site (Table 1, Appendices C and D). One singing male was detected during all three survey periods at the southern end of the survey route, adjacent to Scott's Pond, (Appendices C and D). None of the Willow Flycatchers observed during our surveys were color-banded; therefore, there was no way to identify individual birds during tape playback surveys. However, because this flycatcher was always found in the same general location during all three surveys, we assumed this represented one resident bird, rather than three different birds moving through the area. Ecosphere and SUIT biologists did not observe any female Willow Flycatchers in the Scott's Pond territory during protocol surveys; however, a non-protocol survey conducted on 17 June resulted in the discovery of a Willow Flycatcher nest adjacent to Scott's pond.

The nest contained four eggs at the time of discovery and was being tended by a female flycatcher. Unfortunately, this nest was not monitored following its initial discovery, and was empty during a subsequent visit to the site on 18 July. Because of the long time lapse in monitoring, the SUIT was unable to determine the fate of this nest.

In addition to the flycatcher and nest found at Scott's Pond, we also observed Willow Flycatchers at the northern end of the survey route, near Dry Creek. During the first survey period, we detected one male singing in a dense patch of coyote willow and box elder, just north of the confluence of Dry Creek and the Pine River (Appendices C and D). We did not, however, find any flycatchers north of Dry Creek during the subsequent surveys. Nevertheless, one singing male was detected just south of Dry Creek during the second period (Appendices C and D). Again, we did not observe any flycatchers in this general area during the third survey period. A list of all bird species detected during Southwestern Willow Flycatcher surveys is listed in Appendix E.

Bear Dance to 151.—One Willow Flycatcher was detected at the southern end of this survey area, north of Highway 151, during the second survey period (Table 1, Appendices C and D). This bird was observed singing in a patch of tall (approximately 5 m) willow-cottonwood habitat, adjacent to a cattail marsh. We did not detect any flycatchers at this site, however, during surveys in the third period. Appendix E lists all bird species detected during Southwestern Willow Flycatcher surveys in 2003.

DISCUSSION

The results from the 2003 surveys represent the first comprehensive survey effort for Southwestern Willow Flycatchers on SUIT lands in the San Juan Recovery Unit. Although we did detect a number of singing flycatchers during the first and second survey periods, most of these birds were not present during the third survey period. Therefore, these birds were likely just migrating through, and not breeding within the survey areas (Sogge et al. 1997). Because these birds were probably migrants, it is possible that some or all were not the southwestern sub-species of Willow Flycatcher, E. t. extimus, but rather the Great Basin/Rocky Mountain sub-species, E. t. adastus, as southwestern Colorado occurs within the range boundary established for E. t. extimus and E. t. adastus. Nevertheless, the presence of Willow Flycatchers during the first and second survey periods at sites such as Rock Creek and Bear Dance to 151, suggests that these areas contain habitat both suitable and attractive for Southwestern Willow Flycatchers.

Our 2003 survey effort identified at least one previously unknown Willow Flycatcher breeding territory on the Pine River, the Romero territory. The breeding pair at Romero also produced the first successful Willow Flycatcher nests documented in southwestern Colorado. It is unclear, however, how many territories were present at Romero in 2003. We observed only one singing male at this site, but we speculated that two females nested in this area. It is unlikely that one female attempted a second brood at Romero, within days of fledging young from another nest, because females will continue to feed fledglings for several weeks after they leave the nest (Walkinshaw 1966, Sedgwick 2000). Polygyny

has been reported in other populations of Willow Flycatchers (Prescott 1986, Sedgwick and Knopf 1989); therefore, it may have also occurred at this site.

In 2003, we also confirmed a breeding territory along the Pine River, near Scott's Pond, although we were unable to determine breeding success or failure. SUIT biologists had also observed a Willow Flycatcher in this territory during the third survey period in 2002 (S. Whiteman, pers. comm.); however, there had been no females or nests found at this site at that time.

At this time, the USFWS considers breeding Willow Flycatchers detected in the San Juan Recovery Unit to be the Southwestern sub-species *E. t. extimus*. Because we identified two Willow Flycatcher breeding territories in the San Juan Recovery Unit, additional research should be conducted to confirm that this small population is indeed the Southwestern sub-species. DNA sampling may be used to positively identify genes of the sub-species of flycatchers in this region. In addition, sonogram analyses of flycatcher songs may also be useful in determining Willow Flycatcher sub-species (J. Sedgwick, pers. comm.).

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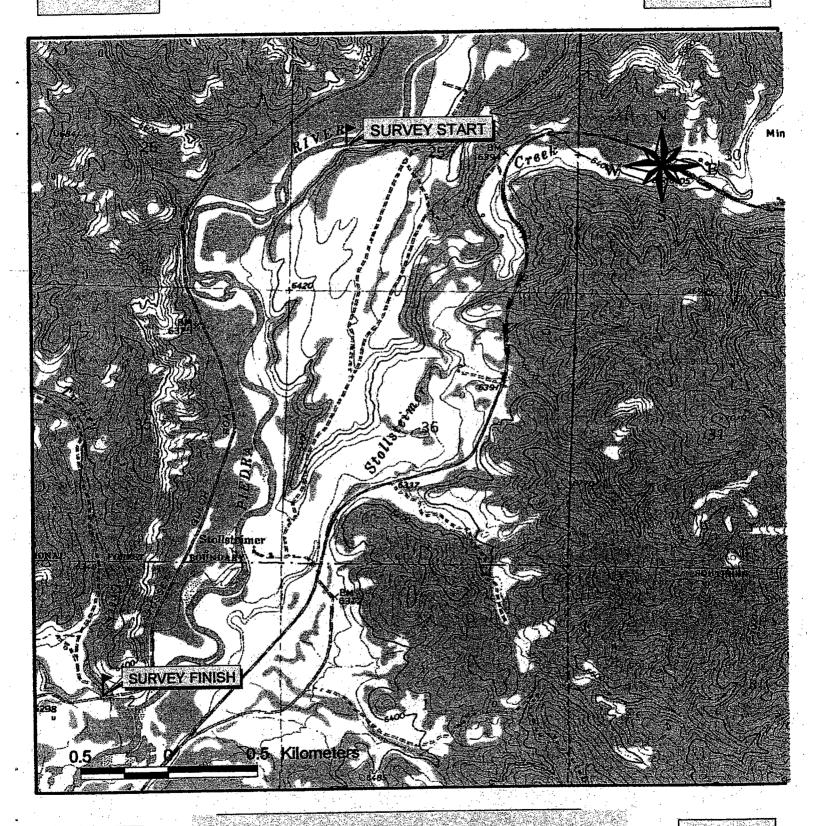
ACKNOWLEDGEMENTS

Ecosphere's funding for this project was provided by the Colorado Division of Wildlife. We thank the Southern Ute Indian Tribe for permission to survey on tribal lands. The following SUIT biologists assisted with Southwestern Willow Flycatcher surveys: Aran Johnson, Danielle McGraw, Steve Whiteman, and Ben Zimmerman. This report was written by Lynn Alterman, with editorial assistance from Mike Fitzgerald, Steve Whiteman, and John Wickersham. GIS maps were created by Carrie Radding.

APPENDIX A

MAPS OF SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREAS ON SOUTHERN UTE INDIAN TRIBAL LANDS

CHIMNEY ROCK QUADRANGLE ARCHULETA COUNTY COLORADO

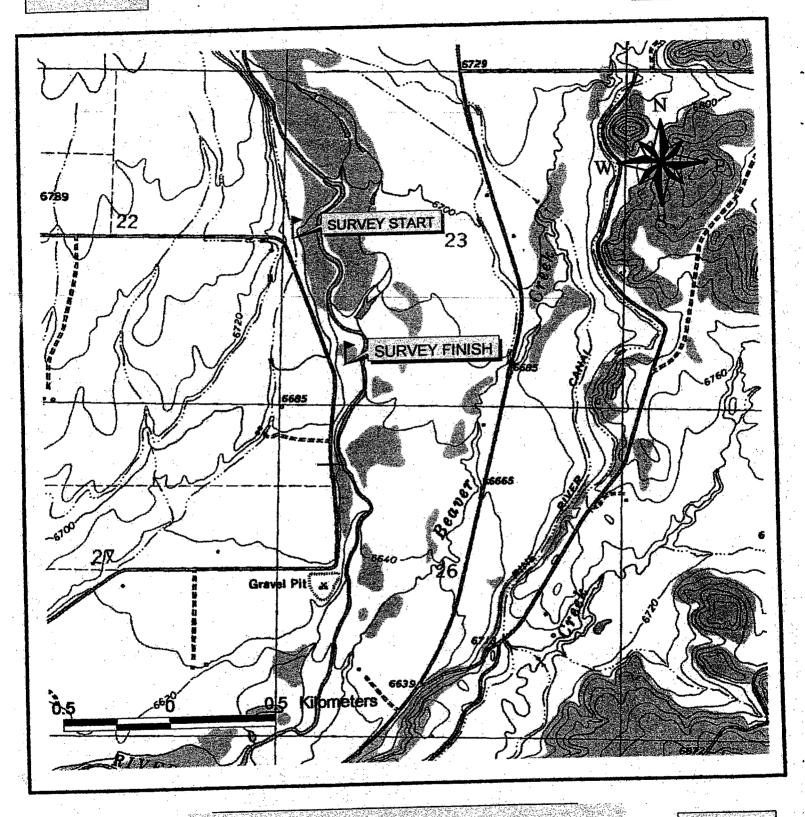


COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA PIEDRA RIVER/SOUTHERN UTE RESERVATION SURVEY AREA MAP

> Propused By: sephere Environment Services

BAYFIELD QUADRANGLE LA PLATA COUNTY COLORADO

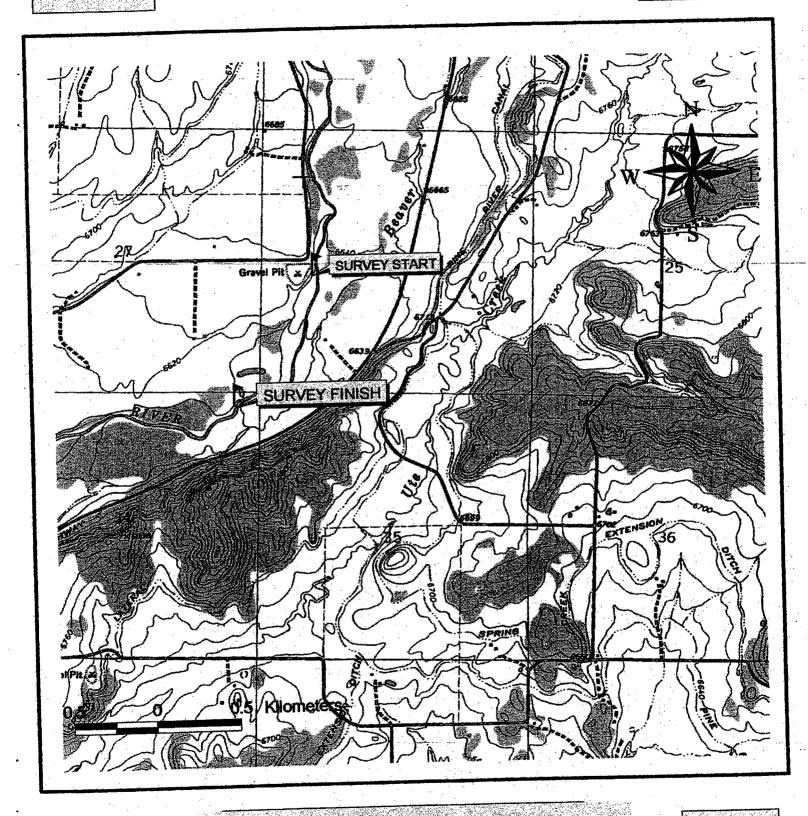


COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA LOS PINOS RIVER/SOUTHERN UTE 518N SURVEY AREA MAP

Propored By: cosphere Environment Services

BAYFELD QUADRANGLE LA PLATA COUNTY COLORADO

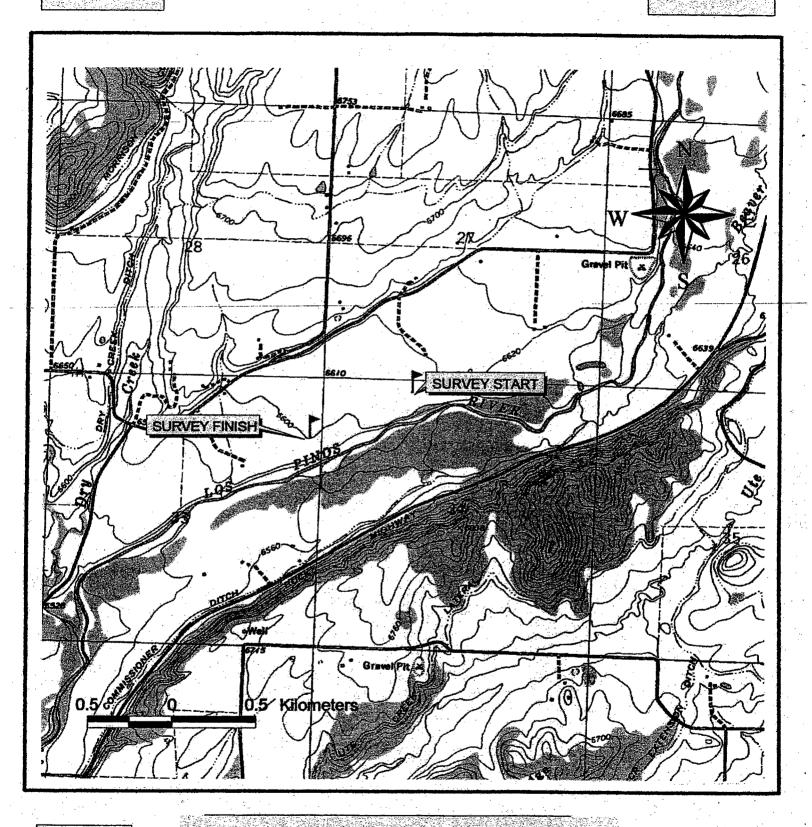


COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA LOS PINOS RIVER/ROMERO SURVEY AREA MAP

> Prepared By: sphere Environme Services

BAYFIELD QUADRANGLE LA PLATA COUNTY COLORADO



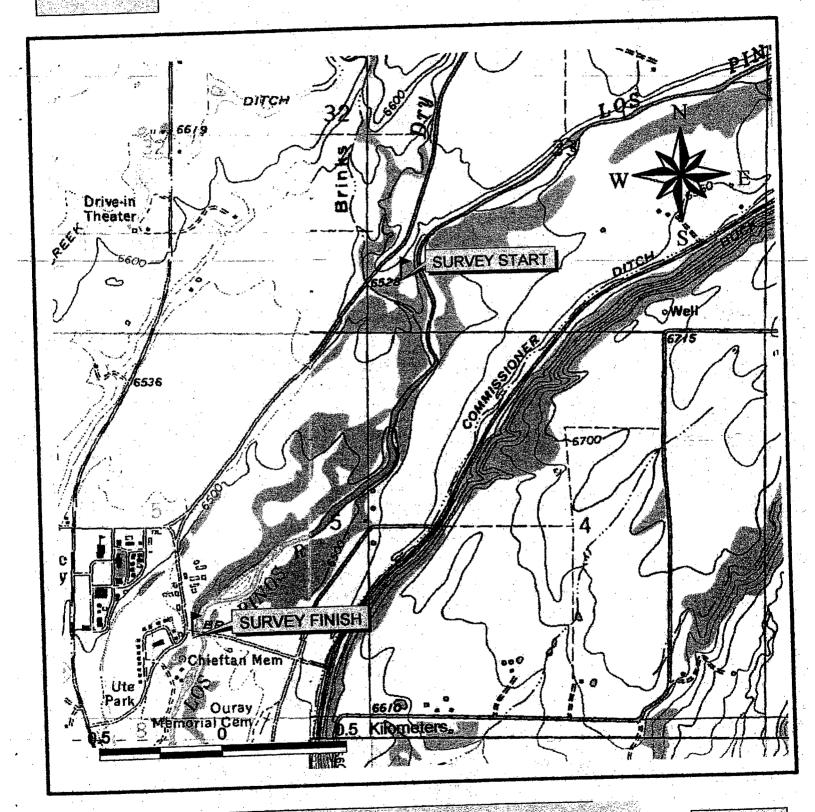
COLORADO

COLORADO DIVISION OF WILDLIFE
SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA
LOS PINOS RIVER/BEAVER CREEK

SURVEY AREA MAP

> Prepared By: sphere Environme

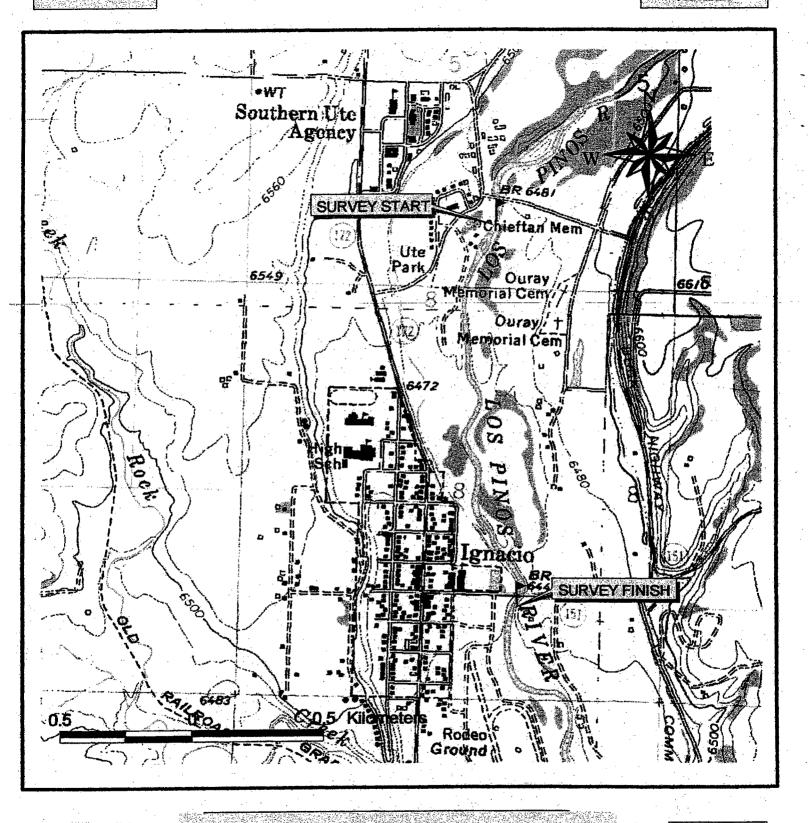
BAYFIELD
GEM VILLAGE
QUADRANGLES
LA PLATA COUNTY
COLORADO



COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA LOS PINOS RIVER/DRY CREEK TO BEAR DANCE SURVEY AREA-MAP
Prepared By:
Beosphere Environmental
Services

KINACIO/TIFFANY GEM VILLAGE QUADRANGLES LA PLATA COUNTY COLORADO

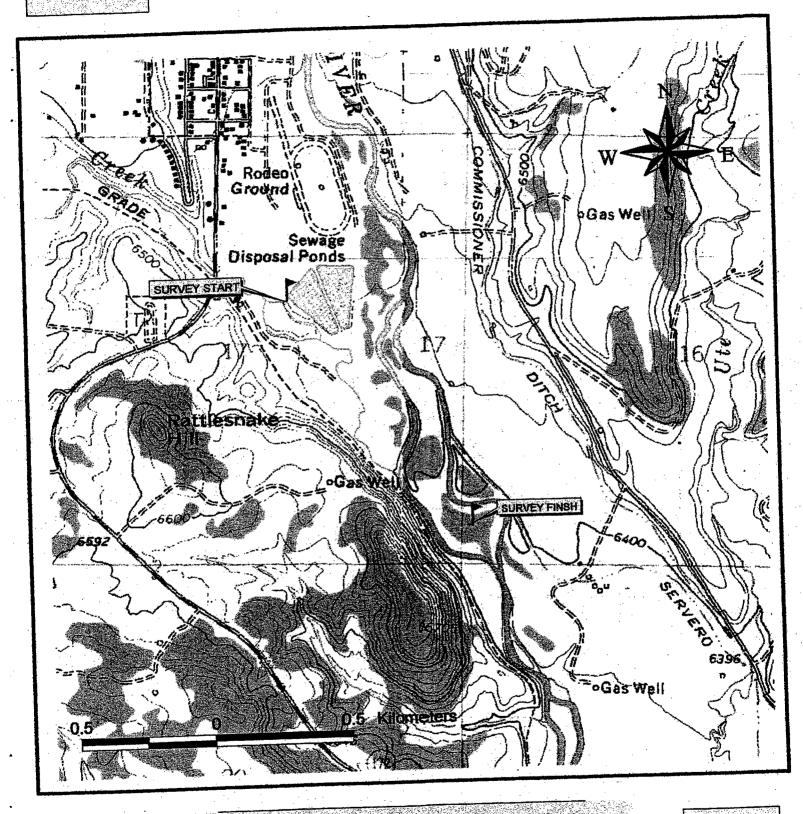


COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA LOS PINOS RIVER/BEAR DANCE TO 151

SURVEY AREA MAP
Prepared By,
Ecosphere Environmental

IGNACIO TIEFANY QUADRANGLES LA PLATA COUNTY COLORADO



COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREA LOS PINOS RIVER/ROCK CREEK (WATER TREATMENT PLANT) SURVEY AREA MAP

Prepared By: capture Environments

APPENDIX B

PHOTOGRAPHS OF SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREAS AND DETECTION SITES ON SOUTHERN UTE INDIAN TRIBAL LANDS

PHOTOGRAPHS OF SURVEY AREAS



Piedra River



518 North



Romero



Beaver Creek

PHOTOGRAPHS OF SURVEY AREAS, CONT.



Dry Creek to Bear Dance



Bear Dance to 151



Rock Creek

PHOTOGRAPHS OF WILLOW FLYCATCHER DETECTION SITES



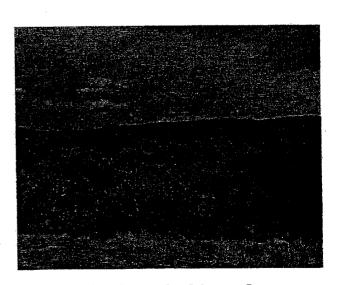
Cottonwood tree and surrounding willow habitat at Romero



Nest with Willow Flycatcher (left) and Brown-headed Cowbird chicks at Romero

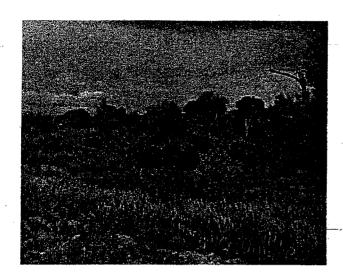


Late nest at Romero

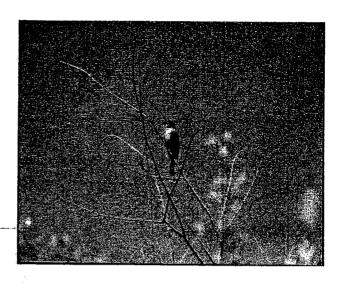


Detection site south of the confluence of Dry Creek and the Pine River

PHOTOGRAPHS OF WILLOW FLYCATCHER DETECTION SITES, cont.



Detection site near Scott's Pond



Willow Flycatcher at Bear Dance to 151



Detection site at Rock Creek

APPENDIX C

U. S. FISH AND WILDLIFE SERVICE PROTOCOL DATA SHEETS FOR 2003

SOUTHWESTERN WILLOW FLYCATCHER SURVEYS

Site Name Pi	edra Ri	ver-S	. Ute 1	Reserva	Hora	Was site num	amund i	vious year? Yes (No
If yes, what site	name was used	!?				_1142 2110 200	vehen Hi ble	vious year? Yes (No)
County Ard	nuleta		State C	O us	GS Quad	Name	a may	Rock
Is co	. Prant: I/_	<u> </u>	<u>. 65</u>	E <u>じ カ</u> ゴナモ	9 <i>01</i> ,2	tings attache	M	ed)? I Yes I No
Elevation	Stop: N_ 0400	1 feet	/meters (ci	E <u>639</u> rcle one)	1 10_	נט	M Z	one <u>13 S</u>
	**	Fill in ad	lditional s	ite inform	ation o	n back of	this page	**
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbinds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fletiges seen; potential threats)
DM, SW, BZ	Date 5/27/03 start 0/030 stop /000 total lars /0/2	Ø			N	Y	Υ	Horses and cattle were present in patches along river. Fresh cow pies/horsedung also present.
² LA, SW, AJ, DM	Date 6/18/03 Start 0 0 3 0 Stop 1 0 0 0 total hrs 10 1/2	Ø	_		N	y	Y	thorses grazing in ripolian co
3/A,SW, AJ,DM	Date 7/7/03 Start 0.030 Stop 0900 total hrs 71/2	Ø			N	7	2)	forces again were present in the riparion wrea
and the second s	Date start stop total hrs							
	Date start stop total hrs						\$	
Overall Site Sum (Total only resident		Adults (/)	Pairs	Territories	Nests		Ls color-banded	Yes No //A
Total survey hrs	a Individual	LINN	Alba			Date Penort		

Submit the original of this form. Retain a copy for your records.

In the title following information completely. Submit original form. Retain copy for your records.
Name of Reporting Individual LINN HI terman
Attitiation <u>FOUSDIETE FAVICAMENTAL SERVICES</u> Finail a terman Canacham
Site Name + 18030 RIVER - Douthern (1.10 Rossey)
Did you verify that this site name is consistent with that used in previous years? Yes (No (circle one)
Management Authority for Survey Area (circle one): Federal Municipal/County State (Tribal) Private
Name of Management Entity or Owner (e.g., Tonto National Forest) Southern We Tribe
Length of area surveyed: 5 K viv (specify units, e.g., miles = mi, kilometers = km, meters = m)
Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.
If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.
Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one): Native broadleaf plants (entirely or almost entirely, includes high-elevation willow) Mixed native and exotic plants (mostly exotic) Optical Control
Average height of canopy: 2-5 m (specify units)
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: (specify units)
Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below.
Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.
Comments (attach additional sheets if necessary): Water level on the Piedra River dropped between the tirst and second surveys and again between the second and third
Surveys.

	17	√ 3	و الم	**		. /		
Site Name Land If yes, what site	25 KINGE	HU/R.	-South	KEN Ut	<u>e 5181</u>	Was site su	rveyed in pre	vious year? Yes No
ii yes, what site	name was used	17		· · · · · · · · · · · · · · · · · · ·				
County <u>La</u>	<u> Lara</u>		State	O us	GS Quad	Name	Sautie	d
Die Cooldinacs	Stop: N_	4/1082 feet	with survey	area and W. E_0270 E_0270 ircle one)	IFL sigh 1485 U.S	tings attache UI	ed (as requir M M Z	ed)?
	**	Fill in ad	ditional s	ite inform	ation o	n back of	this page	**
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 LA	Date \$23/03							
BZ	start 0550	1				V	V	
SW	stop 0 6/5	$ \varphi $]	/	
DM	total hrs					-		
2 MF 	Date 6 13/03				·			
AJ DM	Start	1			Ν	Y	V	
	total hrs	Ø			70			
3 LA	Date 7/10/03				**	* .	re un la dia-	.Observel an Empidora
DM AJ	Start 6915 Stop 6945 total brs 1/2	Ø			Ν	N	Y	flycatcher however, to would not vocalize. Waited to played take a number of times, but nu response.
	Date						,	•
	start					-		
1	stop							
-	total hrs		7.4					
	Date		ĺ					
	slart				-			_
	stop total hrs							
Overall Site Sun		Adults	H irs	Territories	Nests	Were any WII	Ls color-banded	7 Yes No A/A
(Total only resident	WIFLs)		d			If yes, report c		n(s) in the comments section on
Total survey hrs	3 ⁴ 2	4	, yo	4	\mathscr{D}	back of form		
lame of Reportin	o Individual	LUMAI	Alter	man		D . D		2/10/12

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.	
Name of Reporting Individual LUNN Alterman Phone # 970-382-7256	
Affiliation Ecosothere Environmental Services Email alterman e ecosothere-service	, ,
Site Name Los Vinos River - Southern the SIKN Did you verify that this site name is consistent with that used in previous years? Yes (No) (circle one)	1 . Co/
Management Authority for Surray Ann (cina)	_
Jan (Inda) Frivate	•
Name of Management Entity or Owner (e.g., Tonto National Forest) Southern Ute Tribe	
Length of area surveyed: (specify units, e.g., miles = mi, kilometers = km, meters = m)	
Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.	
If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.	
Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one): Native broadleaf plants (entirely or almost entirely, includes high-elevation willow)	
☐ Mixed native and exotic plants (mostly exotic) ☐ Exotic/introduced plants (entirely or almost entirely) Identify the 2-3 predominant tree/shrub species: Coyofe William Narcowleaf Command	
Average height of canopy: 2-5m (specify units)	
(optility times)	
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: Output (specify units)	•
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: Output (specify units) Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below.	
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: 100 (specify units) Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below. Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or second that the survey area, noting the survey site and	
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: October (specify units) Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below. Remember to attach a zerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow fluctoher or will be willow fluctoher or	
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: no occasion (specify units) Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below. Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.	
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Site Name	Romero	1605	Pinc	KIUR	<u></u>	Was site surv	eyed in prev	vious year? Yes (No)				
If yes, what site	name was used?	· · · · · · · · · · · · · · · · · · ·										
County <u>La</u>	i'lata	<u></u>	State	USG USG	iS Quad N	Vame	bay [2				
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Pes \(\text{No} \) Site Coordinates: Start: \(\text{N_411577} \) Stop: \(\text{N_4114939} \) Elevation \(\text{(o)00} \) Teet meters (circle one) ** Fill in additional site information on back of this page **												
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)				
1 J.W. L A. S W. A J.	Date 5-20-63 start 7:50 stop 8:45 total lars 2	Ø	_			7	Y	5 cousids				
SW AJ DM	Date (0/12/63) Start 9:00 Stop 10:00 total hrs		-	_	\mathcal{N}	y	Y	I bird deternot; siroing in a cotonwood tree Codines. It to Willow habitate. UTM: 135-0270411 4115879				
3 DM AU	Date 749 - 7/10 Start 0930 Stop 1040 OQ15 total hrs	6		-	4	\		I WIFL defected on 719, but not sirging. Upon arrival on 710, we detected a male sirging and a female white ite we found a nest a lim from the edge of willow.				
	Date start stop total hrs							patch. Nest contained I WIFL chick sitting in edge of nest; appeared folly to morned and ready to floring. Nest also contained I BHCO chick,				
	Date start. stop total hrs							UTM of B: BS 027045				
Overall Site Su	mmary	Adults	Pairs	Territories	Nests	Were any W	IFLs color-band	ed? Yes No				
(Total only resider	n WIFLs)	2				If yes, report back of form		on(s) in the comments section on				

Submit the original of this form. Retain a copy for your records.

Name of Reporting Individual

Date Report Completed _

Name of Reporting Individual	20%
Site Name	<u>~~~</u>
Did you verify that this site name is consistent with that used in previous years? Yes No (circle one) Management Authority for Survey Area (circle one): Federal Municipal/County State (ribal Private Name of Management Entity or Owner (e.g., Tonto National Forest) Length of area surveyed: Length of area surveyed: (specify units, e.g., miles = mi, kilometers = km, meters = m) Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below the was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below	
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site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below	ow.
agetation Characteristicas Occu-11	
egetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one): Native broadleaf plants (entirely or almost entirely, includes high-elevation willow) Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely or almost entirely the 2-3 predominant tree/shrub species:	
verage height of canopy: 2-7 m (specify units)	• .
s surface water or saturated soil present at or adjacent to site? Ves No (circle one) stance from the site to surface water or saturated soil:	
I hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) res, describe in comments section below.	
member to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site ation of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, te in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photograph, but DO NOT substitute for the required USGS quad map.	and survey aphs are
ments (attach additional sheets if necessary): Level of the Piro River directed between	<u> </u>
THE CONTRACT PROPERTY.	
	 -
	

Site Name	Seaver C	reak	. 405	Pinos	Rive	Vas site surv	eyed in prev	ious year? Yes No
if yes, what site	name was used?			 				\
County_La	Pleta		State CO	_ usg	S Quad l	Name B	ytiel	ò
Site Coordinates:	Start: N	11501a 114737	E	୍ର ଅଧିକର ଅଧିକାର	10/	ngs attached UTI UTI	VI.	d)? E Yes O No
	** }	ill in add	litional si	te inform	ition on	back of t	his page *	*
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbinds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of peirs or breeding, number of sests, next contents or number of fledges seen; potential threats)
1 LA,BZ SW, DM	Date 5/23/03 start 0(045 stop 0720 total lars 1/2	Ø	_	-	N	Y	Y	
2 MF, SW, AJ, DM	Date (p 13/0 Z Start Stop total hrs 2	Ø	-	-	N	Y	Y	
3 LA, AJ, DM	Date Start 0745 Stop 0830 total hrs 21/4	Ø	_		N	Y	N	
	Date start stop total ins							
	Date start stop total brs							
Overall Site St	nnmary nt WIFLs)	Adults	Paics	Territories	Nests	4	t color combinat	led? Yes. No Addition on longs in the comments section on
Total survey h	53/u	Ø	Ø	er man	Ø	back of form	•	d: 7/10/03

Submit the original of this form. Retain a copy for your records.

The the following information completely. Submit original form. Retain copy for your records.
Name of Reporting Individual ANN Alternan Phone # 970-382-7256
Affiliation Ecosphere Environmental Services Email alterman Ecosphere-services.com
Site Name Beaver Creek
Did you verify that this site name is consistent with that used in previous years? Yes (No) (circle one)
Management Authority for Survey Area (circle one): Federal Municipal/County State /Tribal Private
Name of Management Entity or Owner (e.g., Tonto National Forest) With the Tibe
Length of area surveyed: (specify units, e.g., miles = mi, kilometers = km, meters = m)
Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.
If site was surveyed last year, did you survey the same general area this year? Yes/No If no, summarize in comments below.
Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):
Native broadleaf plants Mixed native and exotic plants (mostly native) (entirely or almost entirely, includes high-elevation willow)
☐ Mixed native and exotic plants (mostly exotic) ☐ Exotic/introduced plants (entirely or almost entirely)
Identify the 2-3 predominant tree/shrub species: Coyote William Narrowkeat Cofformal
Average height of canopy: $\frac{\partial -lo m}{\partial -lo m}$ (specify units)
Was surface water or saturated soil present at or adjacent to site? (Yes) No (circle one) Distance from the site to surface water or saturated soil: (specify units)
Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one) If yes, describe in comments section below.
Remember to attach a zerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and ocation of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey oute in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomied, but DO NOT substitute for the required USGS quad map.
Comments (attach additional sheets if necessary): Woter level on the Pino River decreases between survey I and survey I.

	1	Willow	Flycatcher	Survey and	Detectio	n Form (rev	v. 4/98)							
	dry Creek	< to 1	s Riv. Bear 1	Dance		Was site sur	veyed in pre	vious year? Yes No						
If yes, what site if County <u>La</u>	plata			O USC			Bayfie	ld Gern Villian						
Site Coordinates:	Start: N 4	11368	<u>35 </u>	020	FL sight 6723 6036	<u>วีบ</u> า	M	ed)? ☐ Yes □ No one <u>/3 S</u>						
	** Fill in additional site information on back of this page **													
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)						
I-Wickershaz L. Alterman S. Whiteman A. Johnsom	Date 5-20-83 start 5:55 stop 7-25 total hrs 6	2				7	Y	1 bird detection near confluence of Dig Creekt Price River - UST M 135 0207282, 4113502 2nd bird near Scott's And 135 0208505 41120860						
5. Whiteman A. Johnson D. M.	Date 6/12/03 Start 0/000 Stop 0730 total brs //	7			~	y	y	1 11/10/10/10/10/10/10/10/10/10/10/10/10/1						
3 LA,SW, AJ,DM	Date 7/9/03 Start 0/045 Stop 08 !5 total hrs	1	Ø		2	Y	Υ	UTM of bid @ Scores Food: 135, 0266565 4112686						
	Date start stop total hrs													
	Date start stop total hrs													
Overall Site Sun	ımary	Adults	Pairs	Territories	Nests	Were any WI	FLs color-bande	xd? Yes No						
(Total only resident Total survey hrs	WIFLS)		0?		φ	If yes, report of back of form		on(s) in the comments section on						

Name of Reporting Individual LINN Alternam Date Report Completed 7/10/03

			original form. \exists	Retain copy for you	ir records.
Name of Reporting Individu	al John Wie	kersban	Phone	# (970) 2	59-4329
Affiliation Ecos	Obeve		Email	wick@ fronti	er. net
Site Name Dry Did you verify that this site in	Cvee L	used in previous y	rears? Yes 🔞 (o	ircle one)	
Management Authority for S	urvey Area (circle one):	Federal	Municipal/County	State (Tribal) Pr	ivate
Name of Management Entity	or Owner (e.g., Tonto Na	tional Forest)	Southern	Ute Trib	<u></u>
,	_	•			•
Length of area surveyed: /	2 m (specify units,	e.g., miles = mi, kil	ometers = km, met	rs = m)	
Did you survey the same gen	eral area during each visit	to this site this year	r? Yes No If r	o, summarize in comme	nts below.
If site was surveyed last year,	, did you survey the same	general area this yea	ar? Yes/No If n	o, summarize in comme	nts below.
Vegetation Characteristics: C Native broadlea (entirely or almo	•			redominantly of (check ad exotic plants (mostly	•
	d exotic plants (mostly ex	etic)	☐ Exotic/introduc	ed plants (entirely or alt	nost entirely)
Identify the 2-3 predominant		Jillow.	oftomord	Boxelder	
Average height of canopy:	5-7 m	(specif	fy units)	•	
Was murface water or estructe		_			
Distance from the site to surf	ace water or saturated soil	nt to site? Yes N	lo (circle one) (specify units)		
Distance from the site to surfine Did hydrological conditions of If yes, describe in comments	ace water or saturated soil	: adjacent	(specify units)	Yes No (circle one)
Distance from the site to surf Did hydrological conditions of If yes, describe in comments Remember to attach a xerox of location of WIFL detections, route in relation to patch, and welcomed, but DO NOT sub-	hange significantly among section below. copy of a USGS quad/topo You may also include a s location of any willow fly stitute for the required US	y visits (did the site ographical map (RE setch or aerial photocatchers or willow	(specify units) flood or dry out)? EQUIRED) of the stoograph showing de	rvey area, noting the su tails of site location, pat	rvey site and ch shape, survey
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Distance from the site to surf Did hydrological conditions of If yes, describe in comments Remember to attach a xerox of location of WIFL detections, route in relation to patch, and welcomed, but DO NOT sub- Comments (attach additional	change significantly among section below. copy of a USGS quad/topo You may also include a silocation of any willow fly stitute for the required US sheets if necessary):	graphical map (RE setch or aerial photocatchers or willow GS quad map.	(specify units) flood or dry out)? QUIRED) of the stograph showing deflycatcher nests de	rvey area, noting the su tails of site location, pat tected. Such sketches or	rvey site and ch shape, survey
Distance from the site to surf Did hydrological conditions of If yes, describe in comments Remember to attach a xerox of location of WIFL detections, route in relation to patch, and welcomed, but DO NOT sub- Comments (attach additional	change significantly among section below. copy of a USGS quad/topo You may also include a silocation of any willow fly stitute for the required US sheets if necessary):	graphical map (RE setch or aerial photocatchers or willow GS quad map.	(specify units) flood or dry out)? QUIRED) of the stograph showing deflycatcher nests de	rvey area, noting the su tails of site location, pat tected. Such sketches or	rvey site and ch shape, survey

	1.00	Willow Pin Os		Survey and	Detectio	n Form (re	v. 4/98)	
Site Name Be If yes, what site	ar Dance	e to				Was site sur	veyed in pre	vious year? Yes No
County /	Fisito,		State_C	O USC	GS Quad	Name	anacio	and Tiffiany and
Is co	: 2 raut: N	411001 -	<u>so</u> .	E_ O 2 0	<i>७.</i> 38'↓	UI	7. F	ed)? I Yes I No Ocin.
Elevation	Stop: N_4 500	(11065 feet	7 meters (ci		0407	UI	M Z	one <u>/38</u>
	**	Fill in ad	ditional s	ite inform	ation or	back of	this page	
Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 LA, BZ,	-,,-							seen, potential unears)
SW, DM	start 0745 stop 0830 total hrs 11/2	Ø	_			Y .	Y	
2 MF, SW, AJ, DM	Date					Y	Y	UTM of GILD : 135 026627 41/1225
3 <u>LA</u> <u>AJ, DM</u>	Date 7/10/03 Start 0045 Stop 0730 total hrs 13/4	Ø	_		Ν	Y	Y	
	Date start stop							
	total hrs Date start							

Territories

Nests

total hrs

Adults

Pairs

Overall Site Summary

(Total only resident WIFLs)

Total survey hrs

Were any WIFLs color-banded? Yes No

If yes, report color combination(s) in the comments section on back of form

Fill in the following information completely. Submit original form. Retain copy for your records.	
Name of Reporting Individual Lynn Alternar Phone #970-388-7256	
Affiliation Ecosphere Environmental Services Email alterman Ecosphere-serv	icas
Site Name Bear Dance to 151 Did you verify that this site name is consistent with that used in previous years? Yes (No (circle one)	Con
Management Authority for Survey Area (circle one): Federal Municipal/County State (Tribal) Private	_
Name of Management Entity or Owner (e.g., Tonto National Forest) Southern Ute Tribe	
Length of area surveyed: 1. (specify units, e.g., miles = mi, kilometers = km, meters = m)	
Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.	
If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.	
Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one): Native broadleaf plants (entirely or almost entirely, includes high-elevation willow) Mixed native and exotic plants (mostly exotic) Notice that this site comprised predominantly of (check one): Mixed native and exotic plants (mostly exotic)	
Identify the 2-3 predominant tree/shrub species: William Cotonward Cattail	
Average height of canopy: 5 ~ (specify units)	
Was surface water or saturated soil present at or adjacent to site? Yes No (circle one) Distance from the site to surface water or saturated soil: (specify units)	
Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)	
Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and ocation of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey oute in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.	
Somments (attach additional sheets if necessary): Piver waser level dropped between Solver and Sulvey 3.	

Willow Flycatcher Survey and Detection Form (rev. 4/98) LOS MINOS RIVER Site Name Rock Cverk (Water Treatment Plant) Was site surveyed in previous year? Yes No If yes, what site name was used? County Lo Olo Lo State Co. USGS Quad Name Lo nocio aro. Tiff and Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Wes \(\text{No} \) Site Coordinates: Start: \(\text{N} \) \(\text{H} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{F} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{E} \) \(\text{O} \) \(\text{O} \) \(\text{E} \) \(\text{E} \) \(\text{E} \) \(\text{O} \) \(\text{E} \)

** Fill in additional site information on back of this page **

feet/ meters (circle one)

Elevation

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbinds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 L.A. S.W. A.J	Date 5-23-63 start 9: 63 storp 9: 417 total lins	4		-		7	2	UTMS of birds: 0:35 0266350, 416953/ 0:35 0266441, 410947 0:35 0266507, 4109476 0:35 0266507, 4109756
Z LA JL SW JAM	Date 6/12/03 Start 0800 Stop 0900 total hrs 5	Ø		<u>-</u>	~	y	N	
3 LP JB, Sw. AJ, On	Date 7/9/03 Start 0845 Stop 0945 total hrs 5	Ø	-	—	N	Y	N	en e
1	Date start stop total hrs							
	Date start stop total hrs							
Overall Site Summary (Total only resident WIFLs) Total survey hrs		Adults Ø	Pairs	Territories	Nests Ø	Were any WIFLs color-banded? Yes No If yes, report color combination(s) in the comments section on back of form		

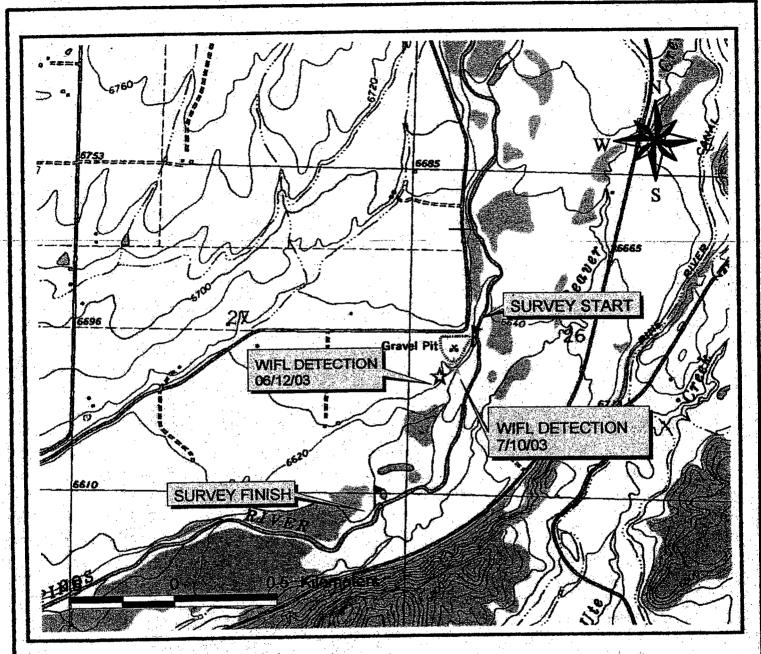
Name of Reporting Individual 4NN A TOCALOR Date Report Completed 7/10/03

Fill in the following information completely. Submit original	ginal form. Retain copy for your records.
Name of Reporting Individual John Wickersha	
	Email Wick e
Site Name Rock (veek	
Did you verify that this site name is consistent with that used in previous years	s? Yes No (circle one)
Management Authority for Survey Area (circle one): Federal M	funicipal/County State Tribal Private
Name of Management Entity or Owner (e.g., Tonto National Forest)	othern Ute Tribe
Length of area surveyed: 1.315m (specify units, e.g., miles = mi, kilom	eters = km, meters = m)
Did you survey the same general area during each visit to this site this year?	Yes No If no, summarize in comments below.
f site was surveyed last year, did you survey the same general area this year?	Yes / No If no, summarize in comments below.
(entirely or almost entirely, includes high-elevation willow) ☐ Mixed native and exotic plants (mostly exotic)	Mixed native and exotic plants (mostly native) Exotic/introduced plants (entirely or almost entirely)
dentify the 2-3 predominant tree/shrub species:	Home god Rosese
verage height of canopy: <u>9-10 v</u> (specify un	
Vas surface water or saturated soil present at or adjacent to site? Yes No bistance from the site to surface water or saturated soil:	(circle one) cify units)
old hydrological conditions change significantly among visits (did the site floor yes, describe in comments section below.	od or dry out)? Yes No (circle one)
cemember to attach a xerox copy of a USGS quad/topographical map (REQU) scation of WIFL detections. You may also include a sketch or aerial photographic in relation to patch, and location of any willow flycatchers or willow flycelcomed, but DO NOT substitute for the required USGS quad map.	aph showing details of site location, patch shape, sur-
omments (attach additional sheets if necessary):	
Some Nice motive (up to 20	Im) willow stands
(one WIFL defected	
Woter I del drawed ha for Pier Histor & Knet !	sace hotage serve I am

APPENDIX D

MAPS OF SOUTHWESTERN WILLOW FLYCATCHER DETECTIONS ON SOUTHERN UTE INDIAN TRIBAL LANDS

USOS 7.5 MINUTE TOPOGRAPHIC SURVEY MAP BAYFELD: QUADRANGLES LA PLATA COUNTY COLORADO



LEGEND

★ WIFL Detection in 1st period

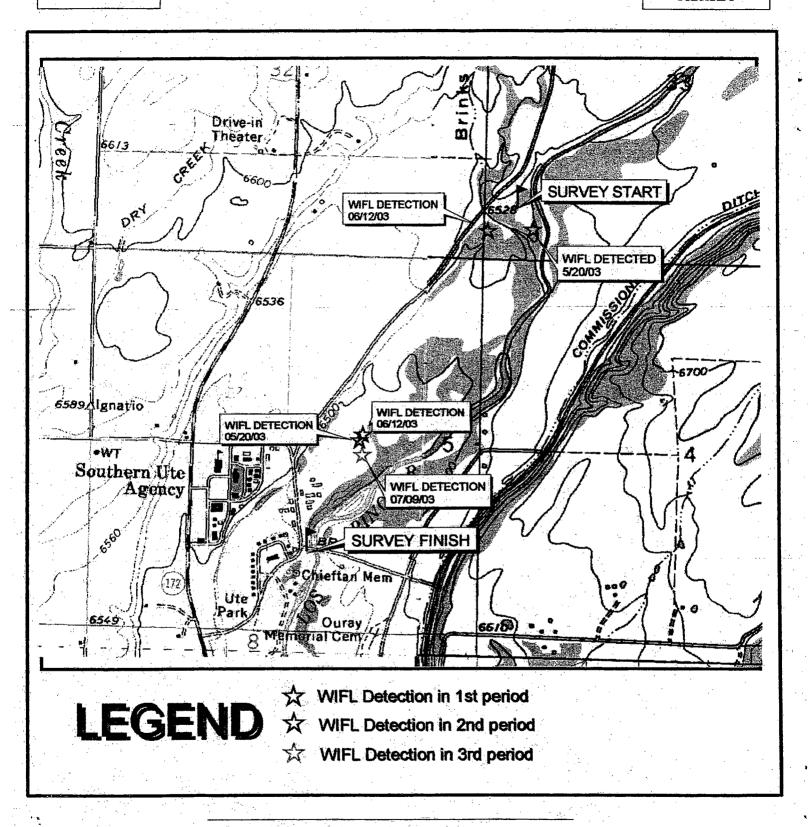
WIFL Detection in 2nd period

WIFL Detection in 3rd period

COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER DETECTION SITES LOS PINOS RIVER/ROMERO WIFL DETECTION
MAP

Propertid By: Ecosphere Environme Services USGS 7.5 MINUTE TOPOGRAPHIC SURVEY MAP BAYFIELD
GEM VILLAGE
QUADRANGLES
LA PLATA COUNTY
COLORADO



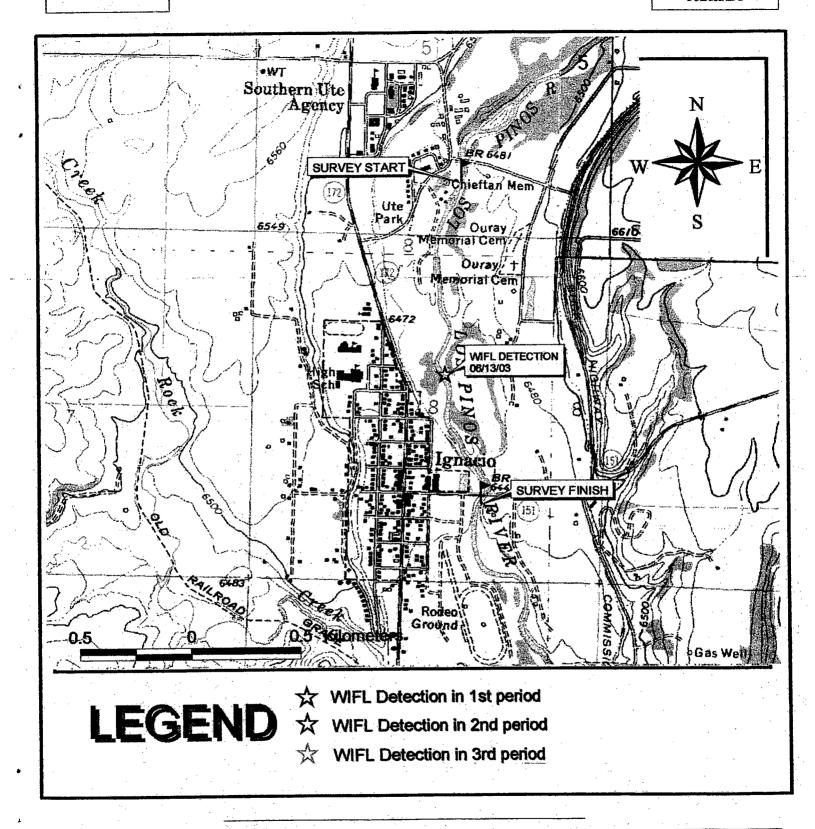
COLORADO

COLORADO DIVISION OF WILDLIFE
SOUTHWESTERN WILLOW FLYCATCHER DETECTION SITES
LOS PINOS RIVER/DRY CREEK TO BEAR DANCE

WIFL DETECTION MAP

> Propored By: cophere Environment Services

USGS 7.5 MINUTE TOPOGRAPHIC SURVEY MAP IGNACIO/TIFFANY GEM VILLAGE QUADRANGLES LA PLATA COUNTY COLORADO

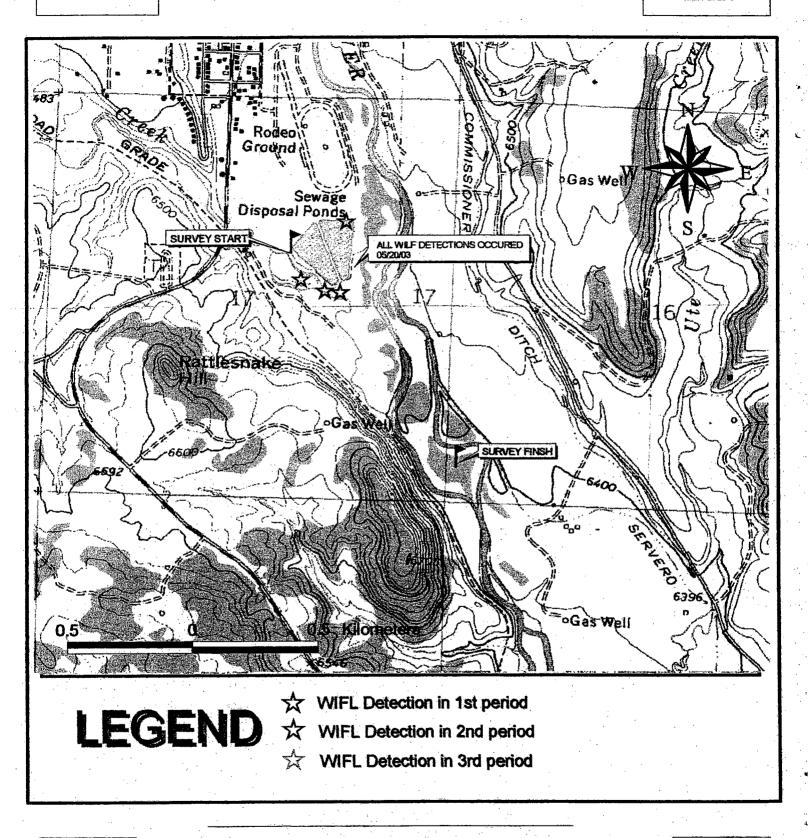


COLORADO

COLORADO DIVISION OF WILDLIFE
SOUTHWESTERN WILLOW FLYCATCHER DETECTION SITES
LOS PINOS RIVER/BEAR DANCE TO 151

WIFL DETECTION MAP

Prepared By: Scoophere Environmental Services USGS 7.5 MINUTE TOPOGRAPHIC SURVEY MAP IGNACIO TIFFANY QUADRANGLES LA PLATA COUNTY COLORADO



COLORADO

COLORADO DIVISION OF WILDLIFE SOUTHWESTERN WILLOW FLYCATCHER DETECTION SITES LOS PINOS RIVER/ROCK CREEK

WIFL DETECTION MAP

> Prepared By: osphere Environmen Services

APPENDIX E

AVIAN SPECIES LISTS FOR SOUTHWESTERN WILLOW FLYCATCHER SURVEY AREAS ON SOUTHERN UTE INDIAN TRIBAL-LANDS

Species list for the Piedra River, Southern Ute Reservation survey area.

Canada Goose

Mallard

Common Merganser

Red-tailed Hawk

Killdeer

Spotted Sandpiper

Mourning Dove

Broad-tailed Hummingbird

Belted Kingfisher

Northern Flicker

Red-naped Sapsucker

Western Wood-Pewee

Western Kingbird

Warbling Vireo

Black-billed Magnie

American Crow

Common Raven

Violet-green Swallow

Tree Swallow

Northern Rough-winged Swallow

Mountain Chickadee

White-breasted Nuthatch

House Wren

Blue-gray Gnatcatcher

American Robin

Grav Catbird

Cedar Waxwing

Yellow Warbler

Wilson's Warbler

Yellow-breasted Chat

Western Tanager

Spotted Towhee

Song Sparrow

Black-headed Grosbeak

Red-winged Blackbird

Brown-headed Cowbird

Bullock's Oriole

American Goldfinch

Branta canadensis

Anas platyrhynchos

Mergus merganser

Buteo jamaicensis

Charadrius vociferous

Actitus macularia

Zenaida macroura

Selasphorus platycercus

Ceryle alcyon

Colaptes auratus

Sphyrapicus nuchalis

Contopus sordidulus

Tyrannus verticalis

Vireo gilva

Pica pica

Corvus brachyrhynchos

Corvus corax

Tachycineta thalassina

Tachycineta bicolor

Stelgidopteryx serripennis

Poecile gambelli

Sitta carolinensis

Troglodytes aedon

Polioptila caerulea

Turdus migratorius

Dumetella carolinensis

Bombycilla cedrorum

Dendroica petechia

Wilsonia pusilla

Icteria virens

Piranga ludoviciana

Pipilo maculatus

Melospiza melodia

Pheucticus melanocephalus

Agelaius phoeniceus

Molothrus ater

Icterus bullockii

Carduelis tristis

Species list for the Pine River, Southern Ute Indian Tribe survey areas.

Great Blue Heron

Black-crowned Night Heron

Mallard

Common Merganser

Red-tailed Hawk

Swainson's Hawk

Spotted Sandpiper

Mourning Dove

Belted Kingfisher

Northern Flicker

Western Wood-Pewee

Willow Flycatcher

Cordilleran Flycatcher

Ash-throated Flycatcher

Western Kingbird

Warbling Vireo

Black-billed Magpie

Violet-green Swallow

Northern Rough-winged Swallow

Black-capped Chickadee

House Wren

American Robin

Gray Catbird

European Starling

Cedar Waxwing

Yellow Warbler

Wilson's Warbler

Common Yellowthroat

Yellow-breasted Chat

Spotted Towhee

Song Sparrow

Black-headed Grosbeak

Blue Grosbeak

Western Meadowlark

Red-winged Blackbird

Great-tailed Grackle

Brown-headed Cowbird

Bullock's Oriole

House Finch

American Goldfinch

Ardea herodias

Nycticorax nycticorax

Anas platyrhynchos

Mergus merganser

Buteo jamaicensis

Buteo swainsoni

Actitus macularia

Zenaida macroura

Ceryle alcyon

Colaptes auratus

Contopus sordidulus

Empidonax traillii

Empidonax occidentalis

Myiarchus cinerascens

Tyrannus verticalis

Vireo gilva

Pica pica

Tachycineta thalassina

Stelgidopteryx serripennis

Poecile atricapillus

Troglodytes aedon

Turdus migratorius

Dumetella carolinensis

Sturnus vulgarus

Bombycilla cedrorum

Dendroica petechia

Wilsonia pusilla

Geothlypis trichas

Icteria virens

Pipilo maculatus

Melospiza melodia

Pheucticus melanocephalus

Guriaca caerulea

Struenlla neglecta

Agelaius phoeniceus

Ouiscalus mexicanus

Molothrus ater

Icterus bullockii

Carpodacus mexicanus

Carduelis tristis